

**Marine Endangered Species Monitoring Program
Relocation Trawling Summary
Brazos Island Harbor, Texas
W912HY-07-C-0012
US Army Corps of Engineers - Galveston District
Great Lakes Dock and Dredge Co.
18Feb-15Mar 2007**



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ABSTRACT

A twenty-four-hour-per-day relocation project was conducted onboard the trawling vessels F/V Miss Adrienne and F/V Jana Lin working for East Coast Observers, Inc. for endangered and threatened sea turtles during emergency dredging on the Jetty Channel of the Brazos Island Harbor, Texas Project. Species targeted included Loggerhead (Caretta caretta), Kemp's Ridley (Lepidochelys kempii), Green (Chelonia mydas), Hawksbill (Eretmochelys imbricata), and Leatherback (Dermochelys coriacea) sea turtles. Coverage was provided at 100% by one (1) relocation trawler for the dredge Padre Island, with the option of adding a second relocation trawler if deemed necessary. This summary focuses on statistics and scope of work conducted onboard the F/V Miss Adrienne and F/V Jana Lin.

INTRODUCTION

On 18 February 2007 at 1450hrs, relocation trawling was initiated by Great Lakes Dock and Dredging Co. (GLDD), and conducted by East Coast Observers, Inc. (ECO) in accordance with the requirements of the US Army Corps of Engineers (USACE) permit authorizing the hopper dredging. Approximately twenty-four (24) hours of pre-dredge trawling was conducted, after which the hopper dredge Padre Island began dredging within the Jetty Channel. Trawling continued 24 hours a day during all dredging activities barring abeyance of operations regarding any mechanical failures (dredge or trawling vessel), routine maintenance, taking on fuel, potable water, supplies, or heightened sea states due to foul weather. On 08 March, 2007 Option two (2), addition of the second relocation trawler, was implemented. The second trawler arrived on site on 10 March 2007 and began working at 0930hrs. Project completion occurred on 15 March 2007 at 1500hrs.

SCOPE OF WORK

This relocation-trawling project in Brazos Island Harbor, Texas was contracted by Great Lakes Dock and Dredging Co. ECO, Inc provided relocation-trawling services providing a total of two (2) trawlers. Onboard said trawlers ECO, Inc was responsible for providing and maintaining two working nets, equipment, trained personnel, and a trawl supervisor approved through The National Marine Fisheries Service (NMFS). Equipment and operational standards were maintained in excellent order, and open communication was maintained at all times between all parties involved to achieve the best results possible. All parties agreed on trawling speed, length of tow, number of drags in segment and length of dredging / trawling during the segment. The trawler was required to drag approved nets ahead of the dredge Padre Island at all times.

Trawling was conducted with repetitive tows not to exceed thirty (30) minutes, and pertinent data was recorded by the trawling supervisor for each tow on standardized log sheets. Data included beginning and ending tow times, depth of water, average trawl speed, latitude and longitude at start and end of tow (obtained by GPS equipment aboard trawler), water temperature, air temperature and various sea conditions (wave height, wind speed, weather conditions), biological species by-catch, number of turtles captured (if applicable) on each tow and in which net (port or stbd.), and any relevant comments or subsequent incidents. A daily trawl summary was electronically submitted by the trawl supervisor to USACE, Great Lakes Dock and Dredging and any other required personnel which included any turtles relocated, by-catch, weather conditions and any other pertinent information for the day.

All turtles captured for relocation would be identified, measured, tagged, and released starting 3 miles outside the project area as per contract specifications (See Attached File).

All applicable permits for handling endangered and threatened species were obtained from the appropriate federal and agency(ies), and all licensing is current. Observers and trawl supervisors are unconditionally approved through NMFS.

RESULTS

Table 1: Cumulative project totals.

Project Date: 18 Feb 2007 – 15 Mar 2006
Project Length: 26 days
Total Number of Dredge Takes: 6 dredge takes (5 C. mydas, 1 C. caretta)
Total Tows: 996 (M.Adrienne – 794, J.Lin – 202)
Number of Turtles Collected and Released: 65 (M.Adrienne – 60, J.Lin – 5)
Species: 64 C. mydas, 1 L. kempii
Capture Rate: (# turtles / # tows) = 0.06526% (cumulative percentage)
Number of Recaptures: 3 C. mydas (2 this effort, 1 from 02 Aug 2006)
Number of Turtles Transported to Rehabilitation: 0
Air Temperature: 54° - 83° Fahrenheit
Water Temperature: 58° - 71° Fahrenheit

DISCUSSION

All operations and methods employed by ECO, Inc. proved to be an overall success throughout project duration. Open communication was maintained between mates operating dredge and captains and/or trawl supervisor(s) onboard trawling vessels. There were occasions where trawler and/or the dredge suspended operations due to unsafe sea conditions and mechanical difficulties.

There were a total of three (3) recaptured turtles during the duration of the project. Two recaptures were from this project's effort. One recapture, turtle number forty-eight, was determined to be a capture from Texas A & M researchers. The original capture information follows:

The turtle was first tagged when it was caught in a tangle net on the Mexiquita Flats on the north side of the Brownsville Ship Channel near Port Isabel, Cameron Co., Texas on 02 August 2006. The right flipper was shorter than the left flipper.

Measurements were SCL (n-t)=44.8 cm, SCW=35.9 cm, CCL (n-t)=48.8 cm, CCW=41.8 cm.

A total of six (6) incidental sea turtle takes occurred during the project onboard the dredge Padre Island. The F/V Miss Adrienne successfully relocated sixty threatened and endangered sea turtles and the F/V Jana Lin successfully relocated five threatened and endangered sea turtles. The sixty-five turtles captured were relocated outside the project area as per contract specifications.

Table 1 By-catch list for all trawlers for duration of project

Species
Angel Shark
Atlantic Cutlassfish
Black Drum
Blue Crab
Burrfish
Cannonball Jellyfish
Cow nose ray
Cowfish
Croaker
Hammerhead Shark
Hardhead Catfish
Harvestfish
Lesser Electric Ray
Lookdown
Menhaden
Moon Jellyfish
Moonfish
Perch
Red Drum
Sea Hare (<i>Aplysia brasiliiana</i>)
Sheepshead
Smooth Butterfly Ray
Southern Stingray
Speckled Crab
Spotted Eagle Rays
Stone Crab
Tripletail